

Art Unit: 1600

Clmspto for allowance

Tplunkett

12/02/04

1. (Previously Presented) A method of using an addressable array of biopolymers on a substrate, comprising:

(a) receiving an array of addressable biopolymer regions and an associated machine readable identifier carried on an array substrate or array housing;

(b) exposing the array to a sample;

(c) reading the array;

(d) machine reading the identifier as an identifier signal; and

(e) retrieving updated biological function data for one or more of the biopolymers from a memory based on the identifier signal, wherein the retrieved biological function data comprises information on the function of a target of the array, or its complement, or the gene from which either originated;

wherein the retrieval of the biological function data includes: communicating the identifier signal to a processor which retrieves data on the identity of the biopolymers based on the read identifier; and communicating the identity data on the biopolymers to a processor which retrieves the biological function data for one or more of the biopolymers from a memory based on the retrieved identity data.

2. (Original) A method according to claim 1 wherein the biopolymers are polynucleotides.

3. (Original) A method according to claim 2 wherein the biopolymers are DNA.

5. (Original) A method according to claim 1 wherein the memory from which biological function data is retrieved is a portable storage medium received from a remote location.

7. (Previously presented) A method according to claim 1 wherein the processor which retrieves the biological function data and the memory from which the biological function data is retrieved, are remote from the location at which the array and identifier are read, and wherein the read identifier or identity data is communicated to the remote processor.

37. (Previously presented) A method according to claim 1 wherein the retrieved biological function data comprises information on the gene from which a target or its complement originated.

38. (Previously presented) A method according to claim 37 wherein the biopolymers are polynucleotides.

39. (Previously presented) A method according to claim 1 wherein the retrieved biological function data comprises information on the gene from which a target of the array, or its complement, originated.

10. (Previously presented) A method according to claim 9 wherein the biological function data is retrieved by communicating to the remote station the identifier signal, or communicating to the remote station a biopolymer identity obtained using the identifier signal, and receiving the biological function data in response.

11. (Original) A method according to claim 10 additionally comprising: obtaining a communication address of the remote station using the identifier signal; wherein the communication address is used to establish communication with the remote station.

13. (Original) A method according to claim 10 additionally comprising retrieving the biopolymer identity data from a memory carrying multiple identifiers in association with the biopolymer identity data, using the identifier signal, and wherein the biopolymer identity data is communicated to the remote station to retrieve the biological function data in response.

44. (Previously presented) A method according to claim 9 wherein the biopolymers are polynucleotides.